



Evaluating the use of respiratory protection for H1N1 influenza among healthcare workers

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BACKGROUND

- Pandemic Influenza preparedness is a national priority
- State and national guidance developed to assist healthcare facilities
 - California Division of Occupational Safety and Health (Cal/OSHA) requirements for respiratory protection programs (RPP), Aerosol Transmissible Diseases (ATD) Standard
 - CDPH guidance for healthcare workers (HCW)
 - CDC interim guidance on Infection Control Measures for 2009 H1N1 Influenza in Healthcare Settings including Protection of Healthcare Personnel
- Respirator use Evaluation in Acute-care California Hospitals (REACH) Public Health Practice Study initiated in Aug 2009
 - Collaboration between California Department of Public Health (CDPH) and National Institute for Occupational Safety and Health (NIOSH)

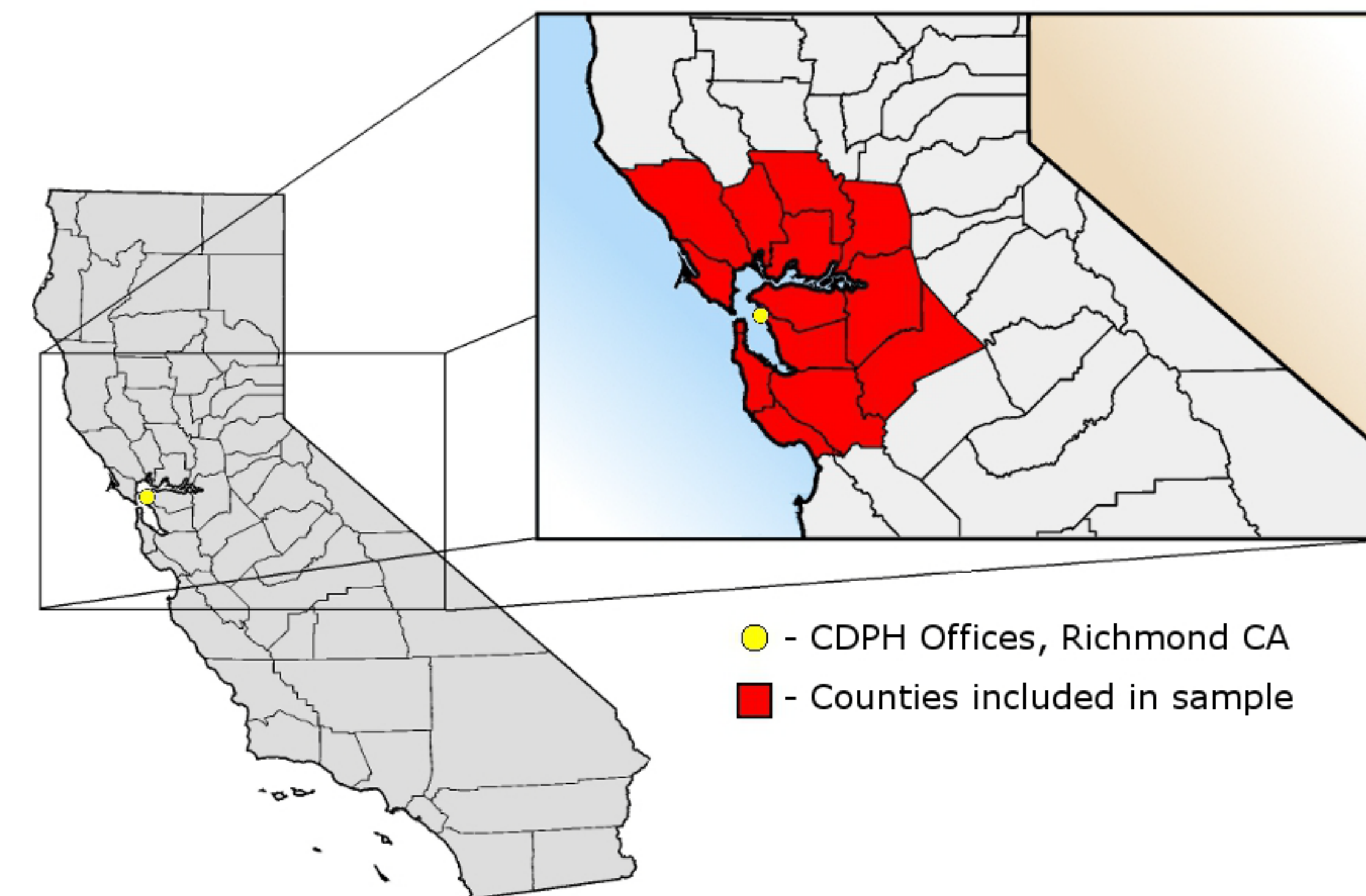


OBJECTIVES

- Describe extent to which hospitals have implemented required elements of RPPs for H1N1 Influenza
- Assess Healthcare worker:
 - Barriers to proper respirator use
 - Knowledge, attitudes, and beliefs regarding N95 respirators
 - Workplace safety climate

METHODS

Sample selection:



- 309 general acute-care hospitals in California
- 88 facilities in counties accessible to CDPH staff by car
- 16 facilities selected by stratified random sample approximating the distribution in California of facilities by type, size, and rural status

Table 1. Distribution of acute care hospitals in California and sample selected for study

	CA n (%)	Sample n (%)
Type		
City/County	18 (5.8)	1 (6.3)
District	27 (8.7)	2 (12.5)
For-profit	65 (21.0)	2 (12.5)
Non-profit	192 (62.1)	10 (62.5)
University	7 (2.2)	1 (6.3)
Size		
< 200 beds	154 (49.8)	8 (50.0)
• • % •	155 (50.2)	8 (50.0)
Area		
Rural	40 (12.9)	2 (12.5)
Non-rural	269 (87.1)	14 (87.5)
Total	309	16

METHODS (continued)

Interviews:

- At each hospital, 15-21 interviews conducted from Jan 20 – Feb 23, 2010
 - Hospital Managers in Nursing, Employee Health, Infection Control
 - Unit Managers in Emergency Dept., ICU, Pediatrics or Medical/Surgical units
 - 3-5 HCWs in each of the 3 units

Observations:

- HCW N95 respirator use/non-use observed when in close contact with patients on airborne precautions

PRELIMINARY RESULTS

- All facilities require an N95 or better respirator when in close contact with suspected or confirmed H1N1 patients
- One facility uses elastomeric N95 respirators, all use disposable filtering facepiece N95s
- Few facilities have implemented all requirements of ATD Standard
- All facilities have some of the required elements of a RPP
 - Formal program audit or evaluation often lacking
- Most observed HCWs wore N95 respirator when required, but used improperly
 - Straps placed incorrectly
 - Fit not checked
 - Facepiece pulled below chin when outside of patient room
- Managers often express difficulty communicating respirator policies to staff
 - Varying schedules and types of employees
 - Multiple changes in guidance during H1N1 pandemic

PRELIMINARY CONCLUSIONS

- Successful recruitment - high degree of participation among selected facilities
- All surveyed hospitals have policies requiring use of N95 respirators for H1N1
 - however-
- HCWs often use N95s incorrectly

STAKEHOLDERS AND PARTNERS

- Participating hospitals, managers, and healthcare workers

NEXT STEPS

- Analyze data using descriptive methods
- Report findings to participating facilities
- Design and implement interventions to assist facilities with RPPs
- Conduct follow-on study during Fall 2010 influenza season

EXPECTED OUTPUTS AND OUTCOMES

- CDPH report describing study methods, findings, and recommended interventions to address findings
- Updated best practices guidelines for respirator use and policies
- Improved RPPs

ACKNOWLEDGEMENTS

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California Aerosol Transmissible Diseases std:
<http://www.dir.ca.gov/title8/5199.html>

Disclaimer: The findings and conclusions in this poster are those of the author(s) and do not necessarily represent the views of the Centers for Disease Control and Prevention.